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EXAMINER	
BELIVEAU, SCOTT E	
ART UNIT	**PAPER NUMBER**
2614	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/761,411	TOMSEN ET AL.	
	Examiner	Art Unit	
	Scott Beliveau	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 December 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application 60/246,542 upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 1-62 of this application. The '542 provisional application fails to disclose a method and system for selectively retrieving and displaying supplemental content related to a television program being displayed as claimed. In particular, fails to clearly disclose or suggest the step of "sensing a change in the television program being displayed". Provisional application no. 60/258,164, however, provides support for the aforementioned claims. Accordingly, the application shall receive the benefit of the '164 provisional application and claims 1-62 shall be examined on the basis of 22 December 2000.

Drawings

2. The drawings were received on 28 December 2004. These drawings are approved.

Terminal Disclaimer

3. The terminal disclaimer filed on disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US co-pending application No. 09/748,080 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

4. The OFFICIAL NOTICE stating that the usage of "one of a media access control (MAC) address and in Internet Protocol (IP) address in connection with routing information to client terminals is notoriously well known in the art was not traversed and is accordingly taken as an admission of fact.

5. The OFFICIAL NOTICE stating that it is notoriously well known in the art for closed captioning information to be delivered via the vertical blanking interval in accordance with analog television broadcast standards (ex. NTSC) was not traversed and is accordingly taken as an admission of fact.

6. Applicant's arguments with respect to claims 1-62 have been considered but are moot in view of the new ground(s) of rejection as necessitated by applicant's amendment.

Claim Objections

7. Claim 6 is objected to because of a lack of antecedent basis for the "storage step". The examiner presumes that the step is referencing the earlier "pre-caching" step. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 62 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "the replacement algorithm" lacks proper antecedent

basis to claim 1. For the purpose of art evaluation the examiner shall presume that the claim is to be dependent upon claim 62.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-3, 6-8, 10, 14, 15, 22, 23, 31-33, 36-38, 40, 44, 45, 52, 53, 61 and 62 are rejected under 35 U.S.C. 102(b) as being anticipated by Brodsky (US Pat No. 5,809,471).

In consideration of claims 1 and 31, the Brodsky reference illustrates a "system" [100] comprising a "set top box" with a "display" and "storage" for "pre-caching an interactive television system with supplemental content related to a television program being displayed" (Abstract). The method comprises "sensing a change in the television program being displayed" and "obtaining contextual information pertaining to the television program" in association with the detection and construction of the dynamic vocabulary of search terms extracted from the received closed captioning text (Col 4, Lines 37-61). The system subsequently "automatically sends an information request [comprising the contextual information] to a content source" [112] such as a local or remote database (Col 6, Lines 29-32) "for supplemental content related to the television program prior to receiving a subsequent user request for such supplemental content" and "in response to the content source identifying any supplemental content related to the television program being

displayed based upon the contextual information, retrieving the supplemental content from the content source, and pre-caching the retrieved supplemental content in the interactive television system for display in response to the subsequent user request" to access the aforementioned information (Col 5, Lines 1-35; Col 5, Line 64 – Col 6, Line 11).

Claims 2 and 32 are rejected wherein "in response to the subsequent user request to find supplemental content related to the television program being displayed" the system "displays the pre-cached supplemental content using the interactive television system" (Col 5, Lines 11-35; Col 6, Lines 12-42).

Claims 3 and 33 are rejected wherein "in response to the subsequent user request to find supplemental content related to the television program being displayed" the system "displays a list of pre-cached supplemental content items retrieved from the content source, receives a user selection of a supplemental content item from the list, and displays the selected supplemental content item using the interactive television system". (Col 5, Lines 11-35; Col 6, Lines 12-42).

Claims 6 and 36 are rejected wherein the system implicitly "repeats the sensing, retrieving, and storing steps at period intervals prior to receiving the user request while the television program is being displayed by the interactive television systems" in conjunction with the extraction, buffering, and preprocessing of the dynamically changing dictionary of search terms based upon the progression of the television program.

Claims 7, 8, 37, and 38 are rejected wherein the contextual information comprises an indication of the television program being displayed which is subsequently "read . . . from

vertical blanking interval (VBI) data associated with the television program" (Col 5, Lines 36-47).

Claims 10 and 40 are rejected wherein the system "searches the content source" associated with either a local or remote database "for supplemental content related to the indication of the television program" (Col 5, Lines 3-10).

Claims 14, 15, 44, and 45 are rejected wherein the "contextual information comprises at least one keyword obtained from closed-captioning text associated with the television program" wherein the system subsequently "searches the content source for supplemental content comprising the at least one keyword" (Col 4, Lines 4-9; Col 5, 37-47)

Claims 22, 23, 52, and 53 are rejected wherein the system further "displays the supplemental content simultaneously with the television program in response to the subsequent user request" in a manner which "reduces the size of the displayed television program relative to the size of the displayed supplemental content" (Col 5, Lines 21-35).

Claims 61 and 62 are rejected wherein the system "periodically replaces pre-cached supplemental content according to a replacement algorithm" wherein the "replacement algorithm comprises a least recently used (LRU) algorithm" in association with managing the capacity of the buffer such that it reflects the most recently extracted or used keywords (Col 4, Lines 48-61). Subsequently, keywords which are the least recently used by the television program are deleted.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 4, 9, 11-13, 34, 39, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky (US Pat No. 5,809,471) in view of Dodson et al. (US Pat No. 6,184,877).

In consideration of claims 4 and 34, the Brodsky reference discloses that the user is operable to utilize a user interface [110] so as to make requests for the application to provide a list of search topics through a button selection (Col 5, Lines 11-20) and to retrieve or pre-cache the supplemental content as aforementioned. The reference, however, does not particularly disclose that the "user request is received in response to a user activating a specifically-designated button on a remote control device for the interactive television system". In a related art pursuant to performing search operation so as to retrieve related content, the Dodson et al. reference discloses that it is known in the art to actuate a "user

request" for supplemental content related to a television program "in response to a user activating a specifically-designated button on a remote control device for the interactive television system" [212'/218']. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to utilize a remote control comprising a "specifically-designated button" with Brodsky for the purpose of providing an easily recognizable means so as to actuate a search operation remotely.

In consideration of claims 9 and 39, the Brodsky reference suggests that it is desirable to retrieve additional video data services for searching, locating and importing information to satisfy a user's request (Col 5, Lines 39-44). Furthermore, the reference suggests the particular further usage of a static portion of the memory relating to program content that is relevant for the duration of the presentation (Col 7, Lines 2-7). The Dodson et al. reference provides evidence that it is known in the art in conjunction with "obtaining contextual information" regarding a television program to "read an the indication of the television program from electronic programming guide (EPG) data associated with the television program" (Dodson et al.: Col 3, Lines 8-28). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify Brodsky so as to further "obtain contextual information" utilizing a supplemental source such as the "electronic program guide" for the purpose of utilizing other available video data services as taught by Dodson et al. in order to obtain additional contextual information regarding a television program (Dodson et al.: Col 1, Line 58 – Col 2, Line 4).

Claims 11 and 41 are rejected wherein "the contextual information comprises a time index" (Dodson et al.: Col 3, Lines 8-28).

Claims 12 and 42 are rejected wherein "the time index indicates a time at which a user command is received to find supplemental content related to the television program" (Dodson et al.: Col 3, Lines 8-28).

Claims 13 and 43 are rejected wherein the method further comprises "searching the content source for supplemental content related to a particular time segment of the television program based upon the time index" (Dodson et al.: Col 3, Lines 8-28).

15. Claims 5, 11, 13, 21, 24, 26, 28, 29, 35, 41, 43, 51, 54, 56, 58, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky (US Pat No. 5,809,471) in view of Wu et al. (US Pat No. 6,326,982).

In consideration of claims 5 and 35, the Brodsky reference suggests that it is desirable to retrieve additional video data services for searching, locating and importing information to satisfy a user's request (Col 5, Lines 39-44) and to retrieve or pre-cache the supplemental content as aforementioned. Furthermore, the reference suggests the particular further usage of a static portion of the memory relating to program content that is relevant for the duration of the presentation (Col 7, Lines 2-7). In a related art pursuant to performing search operation so as to retrieve content related to television programming, the Wu et al. reference discloses that is it known in the art so as to sense changes in television programming being displayed based upon "detecting a channel change" (Wu et al.: Col 11, Lines 3-17). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the modify Brodsky so as to further "detect a channel change" for use in obtaining contextual information for the purpose of utilizing other available video data services in order to obtain additional supplemental information

regarding a television program based upon television program schedule information in a manner that does not require for the encoding of internet information within a television signal (Wu et al.: Col 1, Lines 9-12; Col 2, Lines 11-16).

Claims 11 and 41 are rejected wherein "the contextual information comprises a time index" (Wu et al.: Col 9, Lines 12-27).

Claims 13 and 43 are rejected wherein the method further comprises "searching the content source for supplemental content related to a particular time segment of the television program based upon the time index" (Wu et al.: Col 9, Lines 28-40; Col 10, Lines 14-37)

Claims 21 and 51 are rejected wherein "the contextual information comprises an indication of a channel being displayed" which is subsequently "used . . . to identify a content source to receive the information request" (Wu et al.: Col 9, Lines 28-40; Col 10, Lines 64 – Col 11, Line 2).

In consideration of claims 24 and 54, as aforementioned, Brodsky discloses that it is advantageous to pre-process or cache supplemental content. Brodsky also appreciates that the particular amount of storage space is limited. The reference, however, does not particularly disclose nor preclude the usage of "user preferences" in connection with determining what information related to the television program should be retrieved for presentation to the user. The Wu et al. reference discloses the particular usage of "filtering the supplemental content according to a set of user preferences" (Wu et al.: Col 10, Lines 22-63). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the Brodsky reference so as to employ "user preferences" in associated with "determining which supplemental content is to be pre-cached

prior to receiving the user request" for the purpose of advantageously providing the user with supplemental information which is not only relevant to the current programming being displayed, but is also of personalized interest to particular user. For example, retrieving and caching a large index of topics corresponding to a broad topic wherein the user associated with the system has previously expressed an interest in a particular subset of associated with the topic would result in an inefficient usage of the limited storage space of the Brodsky system.

Claims 26 and 56 are rejected wherein "the information request comprises an identifier of the interactive television system, and wherein the user preferences are stored at the content source and accessed using the identifier of the interactive television system" (Wu et al.: Col 10, Lines 22-63).

Claims 28 and 58 are rejected wherein "at least one user preference indicates a type of supplemental content preferred by the user" (Wu et al.: Col 6, Lines 15-33; Col 7, Lines 1-10).

Claims 29 and 59 are rejected wherein "at least one user preference indicates a source of supplemental content preferred by the user" according to their particular profile (Wu et al.: Col 10, Lines 22-63).

16. Claims 16-20 and 46-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky (US Pat No. 5,809,471), in view of the "Encyclopedia Britannica Online" article, and in further view of Mighdoll et al. (US Pat No. 5,918,013).

In consideration of claims 16, 17, 46, and 47, as aforementioned, the Brodsky reference discloses that the particular database from which supplemental content may be retrieved may

be remote or local databases which comprise encyclopedias. The reference, however, does not explicitly disclose nor preclude the usage of Internet based encyclopedias as a source of information. The "Encyclopedia Britannica Online" article provides evidence as to the existence of remotely accessible encyclopedias since 1994. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify Brodsky so as to employ a remote Internet based encyclopedia such as that provided by "Encyclopedia Britannica Online" for the purpose of utilizing a remote database which includes one of the most comprehensive and highly rated online encyclopedias.

However, the particular usage of an Internet based encyclopedia in conjunction with the Brodsky reference does not particularly disclose or suggest the claimed limitation. The Mighdoll et al. reference discloses a system for caching requested Internet based content in order to improve response times associated with the retrieval and display of information. In particular, the reference discloses that "in response to supplemental content . . . not being found at the content source" or local proxy "the system searches a global information network for supplemental content. . . and retrieves the supplemental content from the global information network for storage in the interactive television system" (Figure 6; Col 8, Line 28 – Col 10, Line 54). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the combined teachings so as to employ a tiered retrieval process involving caching at a local "content source" wherein if a particular request cannot be locally fulfilled then a "global infrastructure" request is relied upon for the purpose of improving latency requirements associated with the download of

requested documents associated with the preprocessing of (Mighdoll et al.: Col 1, Line 54 – Col 2, Line 7).

In consideration of claims 18-20, and 48-50, the combined references in conjunction with an "information request" by the "interactive television system" so as to particularly retrieve articles via an Internet based do not explicitly disclose nor preclude that the "the identifier comprises one of a media access control (MAC) address and in Internet protocol (IP) address" which subsequently facilitates "sending the identified from the supplemental content from the content source to an interactive television system associated with the identifier". Applicant's admission of fact provides evidence as to the usage of "one of a media access control (MAC) address and in Internet protocol (IP) address" in connection with routing information to client terminals is notoriously well known in the art. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to employ "one of a media access control (MAC) address and in Internet protocol (IP) address" in connection with the "information request . . . of the interactive television system" for the purpose of providing a means for "sending the identified supplemental content from the content source to an interactive television system associated with the identifier" in accordance to the standard TCP/IP protocol utilized by the Internet.

17. Claims 24, 25, 27, 30, 54, 55, 57, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky (US Pat No. 5,809,471) in view Reese (US Pat No. 6,374,237).

In consideration of claims 24 and 54, as aforementioned, the Brodsky reference does not explicitly disclose nor preclude the particular usage of "user preferences" in connection with

filtering the retrieved supplemental content for "pre-caching" in order to ensure that the user has immediate access to the requested information. In a related art pertaining to searching and retrieving supplemental content, the Reese reference discloses a system and method that utilizes "user preferences", the Reese reference discloses a method for utilizing "user preferences" in conjunction with performing a search operation (Reese: Col 1, Lines 55-63). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Brodsky so as to employ "user preferences" in associated with "determining which supplemental content is to be pre-cached prior to receiving the user request" for the purpose of advantageously providing the user with supplemental information which is not only relevant to the current programming being displayed, but is also of particularly meaningful to the user (Reese: Col 1, Lines 22-39). For example, taken in combination, a user requesting further information on "France" would subsequently receive supplemental content advantageously relevant to the user's demographics pursuant to the topic of France (Reese: Col 4, Lines 35-47).

Claims 25, 27, 55, and 57 are rejected wherein "the set of user preferences is included with the information request" (Reese: Col 1, Lines 55-63) which further serve to implicitly "indicate a type of supplemental content to exclude" or those documents that do not match that user's preferences.

In consideration of claims 30 and 60, the Reese reference discloses the usage of "at least one user preference stored in response to historical analysis of user selections of supplemental content" to be used for filtering responses in accordance with a profile when responding to a user generated search request (Col 2, Lines 49-65; Col 3, Lines 20-32 and

45-58; Col 8, Lines 26-53). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made so as to use "at least one user preference stored in response to historical analysis of user selections of supplemental content" in conjunction with Brodsky pre-cached retrieval for the purpose of providing means for filtering retrieved search results into a format that is more meaningful to the user (Reese: Col 1, Lines 22-51).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The Tso et al. (US Pat No. 6,681,298) reference discloses a system and method for cache management of retrieved supplemental content for a set top box.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 571-272-7343. The examiner can normally be reached on Monday-Friday from 8:30 a.m. - 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEB
April 20, 2005

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